

REMARKS

I. Introduction

In response to the Office Action dated January 11, 2005, claim 23 has been amended. Claims 1-33 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Claim Amendments

Applicants' attorney has made amendments to the claims as indicated above. These amendments were made solely for the purpose of clarifying the language of the claims, and were not required for purposes of patentability.

III. The Cited References and the Subject Invention

A. The KLOSTERMAN Reference

U.S. Patent No. 6,072,983, issued 6/2000 to Brian Lee Klosterman, discloses a merging multi-source information in a television system. It provides a scheme for merging television schedule information received from multiple sources (26, 28, 30 and 34). In the preferred embodiment, a microprocessor (36) mixes and sorts the schedule information received from multiple source devices (26, 28, 30 or 34). The schedule information is then displayed in a television schedule guide (50). A user can select a program (60 or 62) by pointing to that program in the displayed schedule information (50). The system (10) then carries out an automatic switching/tuning such that the required source device (26, 28, 30 or 34) is input to the destination device (22), and a tuner is then tuned to the selected program's channel (52).

B. The EASTMAN Reference

U.S. Patent No. 5,940,737 issued 8/1999 to Jon M. Eastman discloses a signal selector for receiving and/or processing communication signals having one of a plurality of alternate signal characteristics. In a particular embodiment, a desired satellite signal (e.g. DBS) having a desired characteristic may be selected from a plurality of characteristics. The characteristics may include

(among others) satellite location, carrier frequency, and/or polarization state. In a preferred embodiment, a receiver generates a control signal which is coupled to an external device (e.g. LNB, and/or satellite selector). The external device includes a decoder which receives the control signal and configures the external device for processing the desired characteristic. In a preferred embodiment, the control signal comprises a pulse train generated by the receiver utilizing a two voltage level output device under suitable software control.

C. The STINEBRUNER Reference

U.S. Patent No. 6,133,910, issued 10/2000 to Scott A. Stinebruner discloses an apparatus and method for integrating a plurality of video sources. The video system utilizes a "virtual tuner" that integrates signals from multiple video sources to provide a plurality of "virtual channels", each of which has both a video source and a channel associated with it. When a virtual channel is selected, the correct video source is selected and tuned to the correct channel automatically. The virtual tuner may be embodied in a television or in a separate electronic component coupled thereto, such as a direct broadcast satellite receiver. Alternatively, the video system may be embodied in a universal remote control which is capable of outputting multiple signals to multiple devices in response to a key depression, using either one or two signal transmitters. Channel information may also be downloaded or obtained from a database, for example, to customize an electronic component to receive local broadcast channels.

D. The NORIN Reference

U.S. Patent No. 6,434,384, issued 8/2002 to Norin et al. discloses a non-uniform multi-beam satellite communications system that is said to be particularly useful for television signals, and allows for local as well as nationwide broadcast service by allocating greater satellite resources to the more important local service areas. This is accomplished by broadcasting a non-uniform pattern of local service beams and designing the system to establish different service area priorities through factors such as the individual beam powers, sizes, roll-off characteristics and peak-to-edge power differentials. Frequency reuse is enhanced by permitting a certain degree of cross-beam interference, with lower levels of interference established for the more important service areas.

E. The EYER Reference

U.S. Patent No. 6,401,242, issued 6/2002 to Eyer et al. discloses a method and apparatus for designating a preferred source to avoid duplicative programming services. Interactive Program Guide (IPG) data for television is delivered to integrated receiver-decoders (IRDs) in a decoder population via, for example, a satellite network. The IPG data provides scheduling information for global and local programming services which are carried via the satellite network as well as another network such as a CATV network or a terrestrial broadcast network. Each IRD is assigned to an IPG region using unit addressing. At the IRD, IPG data is filtered so that only the global data and the region-specific data for the IRD's IPG region is retained and processed by the IRD. Channel map data is also delivered to the IRDs so that bundles of IRD data can be filtered out using firmware filtering to discard program sources that are not present in the channel map. The IRD data which is retained after filtering is used to provide scheduling information via an on-screen display. A preferred source may be designated when there are duplicative channels on the different networks

F. The Subject Invention

A system and method for transmitting program guide information describing a second set of programs to subscribers (122) is disclosed. In one embodiment, the method is implemented in a network broadcasting a first signal (616) having a first set of programs and a second signal (618) having a second set of programs. The method comprises the steps of broadcasting first program guide information describing the first set of programs to the subscribers (122) on a first service channel on a first signal (616), and broadcasting second program guide information describing the second set of programs to a subset of the subscribers on the first service channel on a second signal (618), wherein a fundamental signal characteristic of the second signal (618) differs from the fundamental signal characteristic of the first signal (616). In another embodiment, the method comprises the steps of receiving first program guide information describing the first set of programs on a first service channel on a first signal (616) and receiving second program guide information describing the second set of programs on the first service channel on a second signal (618), wherein a fundamental signal characteristic of the second signal (618) differs from the fundamental signal characteristic of the first signal (616).

IV. Office Action Prior Art Rejections

In paragraph 4, the Office Action rejects claims 1-3, 9-11 and 16-18 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman, U.S. Patent No. 6,072,983 (Klosterman) and further in view of Eastman, U.S. Patent No. 5,940,737 (Eastman). The Applicants respectfully traverse these rejections for the reasons described below.

With Respect to Claims 1-3: Claim 1 recites:

*In a network broadcasting a first signal having a first set of programs to a plurality of subscribers and a second signal having a second set of programs, a method of providing program guide information describing the second set of programs, comprising:
broadcasting first program guide information describing the first set of programs to the subscribers on a first service channel on a first signal; and
broadcasting second program guide information describing the second set of programs to a subset of the subscribers on the first service channel on a second signal, wherein a fundamental signal characteristic of the second signal differs from the fundamental signal characteristic of the first signal.*

According to the Office Action, the Klosterman reference discloses *broadcasting second program guide information describing the second set of programs to a subset of the subscribers on the first service channel on a second signal* as follows:

"program guide information can be received through cable box 26, other inputs 30, antennae 34, and/or through any other transmission medium (e.g. dedicated twisted pair telephone line). Each of these sources may also be provided with television schedule data within the signal transmitted by the service provider" (Klosterman 4:66-5:4)" ...

Similarly, program guide information can be received through cable box 26, other inputs 30, antennae 34, and/or through any other transmission medium (e.g., dedicated twisted pair telephone line). Each of these sources may also be provided with television schedule data within the signal transmitted by the service provider. (col. 5, line 66 - col. 5, line 4)

"wherein the second program guide info may comprise local channels (Klosterman 3:38-40)"

...

For example, in the case of DBS/local channel implementations, a channel map is created with both local cable and DBS channels merged. (col. 3, lines 38-40)

"the recipients of the local channels comprising a subset of the (recipients of the?) DBS channels."

The Office action also notes that the Klosterman reference "discloses 'television channel broadcasts are received from at least two separate sources such as (1) cable and satellite dish, or (2) two different satellites, or (3) local cable and DBS sources' (Klosterman 3:9-14)"

In the preferred embodiment, television channel broadcasts are received from at least two separate sources such as (1) cable and a satellite dish, or (2) two different satellites, or (3) local cable and DBS sources. (col. 3, lines 9-14)

Klosterman discloses a system wherein program material from a variety of independent sources can be merged and a source identifier is provided with the program guide so that when the user selects that channel, the subscriber's equipment tunes to the appropriate source.

In creating a merged television guide, a channel map is created which identifies the channels available on the multiple sources, and identifies their source. For example, in the case of DBS/local channel implementations, a channel map is created with both local cable and DBS channels merged. The local channels and the DBS channels are tagged with a source identifier. When the user/consumer selects a non-DBS channel from the guide, the integrated receiver decoder unit (IRD box) for the satellite switches the IRD to couple the local cable to the receiver. The system then tunes the television tuner or other tuning device to the required channel. If a DBS channel is later selected, the system switches the IRD to couple the satellite receiver/decoder to the receiver. The system then tunes the DBS tuner to the selected DBS channel. In the case of, for example, cable and antenna inputs, the system switches to the correct video input and then tunes the television tuner to the required channel for receiving the selected source. Thus, automatic access to multi-source television schedule guide information is provided. (col. 3, lines 36-55)

However, the Klosterman reference does not disclose that the second set of programs are broadcast to a subset of the subscribers on the first service channel on a second signal.

Consider first example (1), which combines a cable input and a satellite dish. In this embodiment, it is plain that the second program guide information is not broadcast on the first service channel (the same that was used to broadcast the first program guide), as the same service channels are not available from cable and satellite systems (at least, the Klosterman reference certainly does not disclose this). The analysis of example (3), "local cable and DBS sources" is analogous.

Consider next example (2), which combines the input from a first satellite and a second satellite. Here as well, Klosterman likewise does not disclose that the second program guide information is transmitted on the same service channel as the first. If the Applicants are incorrect about this, they respectfully request the Examiner indicate where this is disclosed.

Klosterman also does not disclose or teach that the second signal is broadcast to a *subset* of subscribers receiving the first signal. The Office Action appears to make the argument that this is disclosed due to the local cable/satellite embodiment, but as described above, in this embodiment, the second program guide information from the satellite source is not transmitted on the same service channel of the cable source.

Further, with regard to this second example, the Applicants respectfully disagree that there is any teaching or motivation to combine the Klosterman and Eastman references. Klosterman teaches that when a channel from another satellite is selected, the antenna is slewed to point at the second satellite instead of the first (or a second antenna is used). This would seem to imply that physical diversity is required between the signals and thus, also implies that the signals do not differ in a fundamental signal characteristic. Otherwise, if the signals differed, why would the system simply be designed with a beamwidth wide enough to receive signals from both satellites?

Finally, the Office Action indicates that "broadcasting is inherent to receipt of television programs and other information." The Applicants would like to clarify this point. While "reception" inherently implies "transmission", this transmission is not necessarily a "broadcast" or "multicast" transmission. Broadcast and multicast transmissions refer to transmissions directed to multiple receivers. For example, the reception of a message via a single wire by one entity from another may inherently involve a transmission but it does not inherently involve a *broadcast* transmission.

With Respect to Claim 9-11: Claims 9-11 are patentable for the same reasons as claims 1-3 above.

With Respect to Claims 16-18: Claims 16-18 are patentable for the same reasons as claims 1-3 and 9-11 above.

In paragraph 5, the Office Action rejects claims 4, 5, 12 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman, and further in view of Eastman and Stinebruner, U.S. Patent No. 6,133,910 (Stinebruner). The Applicants respectfully traverse this rejection.

With Regard to Claims 4, 5, 12, and 19: Claim 4 recites that the first program guide information includes information describing at least one surrogate channel. Stinebruner recites that:

A DBS content provider may even allocate blank channels to local programming so that individual users in different areas of the country could map local channels to the blank channels without having to move the overlapped channels to other virtual channels. (col. 7, lines 27-35)

The foregoing discloses leaving some channels blank so that they can be filled with local channels. The Applicants "surrogate" channels are not "blank" channels, nor are they "local" channels. Their function is described in the Applicants specification as follows:

In the illustrated embodiment, local channel 1 through local channel 101 814 are presented generically by "surrogate" channels 900-1000. That is, specific program information is not included, but an indication that channels 900-1000 are dedicated to rebroadcast local content is indicated. In one embodiment, information 816A-816C is also provided in program content descriptor columns 806A through 806C to indicate that additional program information regarding these local channels can be obtained by selecting the viewer channel 802 for the local channel of interest. This selection is typically made with the use of a user interface device such as the remote control or keyboard 524. (Specification, page 15, line 28 through page 16, line 6).

Indeed, by providing either nothing (a blank channel) or the local channel, Stinebruner teaches away from the Applicant's invention.

Claims 5, 12, and 19 are patentable for the same reasons.

In paragraph 6, the Office Action rejects claims 6-7 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman and further in view of Eastman and Norin et al., U.S. Patent No. 6,434,384 (Norin). The Applicants respectfully traverse these rejections, for the reasons described above with respect to claim 1.

In paragraph 7, the Office Action rejects claims 13-14 and 20-21 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman and further in view of Eastman, Stinebruner and Norin. The Applicants respectfully traverse these rejections for the same reasons described above with respect to claims 9, 10, and 12.

In paragraph 8, the Office Action rejects claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman and further in view of Eastman, Stinebruner, Norin and Eyer et al., U.S. Patent No. 6,401,242 (Eyer). In paragraph 9, the Office Action rejects claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman and further in view of Eastman, Stinebruner and Eyer. The Applicants respectfully traverse these rejections for the reasons as presented for claims 9, 10, 12, and 14.

In paragraph 10, the Office Action rejects claims 8, 23-26, 28 and 33 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman and further in view of Eyer and Eastman, U.S. Patent No. 5,940,737 (Eastman). The Applicants respectfully traverse these rejections for the reasons as presented for claims 9, 10, 12, and 14

With Respect to Claim 8: Claim 8 is patentable for the same reasons as claim 1.

With Respect to Claim 23-26: Claim 23 recites:

An apparatus for use with a system broadcasting a first signal having a first set of programs to a plurality of subscribers and a second signal having a second set of programs to a subset of the subscribers, comprising:

a compiler, configured to segment the programs into the first set of programs and the second set of programs, and to generate first program guide information describing the first set of programs and second program guide information describing the second set of programs;

a first transmitter, communicatively coupled to the compiler, for transmitting first program guide information describing the first set of programs on a first service channel on a first signal; and

a second transmitter, communicatively coupled to the compiler, for transmitting the second program guide information describing the second set of programs on the first service channel on a second signal;

wherein a fundamental signal characteristic of the second signal differs from the fundamental signal characteristic of the first signal.

According to the Office Action Klosterman discloses merging multiple source schedule guide information, but admits that the Klosterman reference does not disclose a *compiler, configured to segment the programs into a first set of programs and the second segment of programs, and to generate first program guide information describing the first set of programs and second program guide information describing a second set of programs*. The Office Action then argues that Klosterman is silent as to a compiler configured to perform these operations, and relies on the Eyer and Eastman references.

Klosterman, however, is more than just silent as to these features. Klosterman is directed to a system in which receives programs from completely different, and typically competing sources (e.g. cable, DBS, and terrestrial transmissions). Klosterman does not even remotely suggest, and in fact,

teaches away from a system in which the programs emanating from these different sources were segmented by a common compiler, as claim 23 recites. Indeed, if the programs for all of the different sources came from a common compiler, there would be little need for the Klosterman invention to create a "merged guide".

The Office action also indicates that the Eyer reference discloses a single source segmenting/compiling IPG data into non-region specific and region specific IPG data as follows:

In a particular embodiment, the IPG data is broadcast via the first communication plant in data bundles, including at least one data bundle comprising non-region-specific IPG data, and at least one data bundle comprising region-specific IPG data. At each decoder, the data bundles are filtered according to the assigned IPG region to:

- (a) recover at least one bundle of region-specific IPG data corresponding to the decoder's assigned IPG region;
- (b) recover at least one bundle of non-region-specific IPG data; and
- (c) ignore at least one bundle of region-specific IPG data not corresponding to the decoder's assigned IPG region. (col. 4, lines 11-24)

The Applicants respectfully disagree. The foregoing discloses non-region specific and region-specific IPG, but does not disclose that the IPG data was segmented by a single source. Indeed, read in its entirety, Eyer appears to teach assembling the region-specific and non-region specific data together from different sources ... the opposite of what is claim 23 recites.

It is also noted that the foregoing passage of Eyer itself actually teaches away from the Applicants invention. Claim 23 recites that the second transmitter transmits the second program guide information describing the second set of programs *on the first service channel on a second signal*. Eyer teaches transmitting the first program guide information and the second program guide information on different service channels of the same signal, and thus teaches away from the Applicants' invention and away from any combination with Klosterman. Klosterman also teaches away from Eastman for the reasons discussed above.

Claims 24-26 are patentable for the same reasons.

With Respect to Claim 28: Claim 28 is patentable for the same reasons as claim 27, as described below.

With Respect to Claim 33: The Office Action argues that Eyer teaches a system where some of the services broadcast by CATV might be duplicative of those broadcast by a satellite, and that it would be obvious to modify the Klosterman television schedule guide with the Eyer duplicative

programming for the purpose of avoiding duplicative programming. However, claim 33 recites that both transmissions originate from a common compiler. It would seem that following the teaching of Klosterman and Eyer, any duplicative programming would have been avoided or eliminated by the compiler before transmission. Accordingly, the Applicants respectfully traverse the rejection of claim 33.

In paragraph 11, the Office Action rejects claims 27 and 31-32 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman and further in view of Eyer, Eastman and Norin. In paragraph 12, the Office Action rejects claims 29-30 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman and further in view of Eyer, Eastman and Stinebruner.

With Respect to Claim 27: Claim 27 recites that the first transmitter comprises a first transponder and the second transmitter comprises a second transponder, and that both transponders are disposed on the same satellite. According to the Office Action, transponders are inherent to satellites, and Klosterman is "silent" as to whether the first and second transponders are located on the same satellite. This is incorrect on both counts.

First, inherency "may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991). Instead, to establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *Continental Can Co.*, 948 F.2d at 1268. Klosterman does not disclose the use of transponders, and it is not true that all satellites use transponders for transmission. Transponders are therefore not inherently disclosed.

Second, Klosterman is not simply "silent" on the notion of whether the two transmitters are disposed on the same satellite. Klosterman explicitly teaches that they are not. With regard to the embodiment having multiple satellites, Klosterman teaches:

Other inputs 30 can include multiple satellite sources. When multiple satellite sources are present, coordinator 20 switches between the available satellite sources by automatically moving the user's satellite dish or switching between satellite dishes. In order to automatically move the satellite dish, a memory within IRD box 28 tracks the position of the DBS satellite dish in relation to satellite sources which are available via the DBS satellite dish. The IRD box 28 then automatically positions the DBS satellite dish such that the desired satellite source is received by the IRD box 28. (col. 4, lines 17-26)

Klosterman therefore expressly teaches away from a system receiving different program guide information from two transponders on the same satellite. Klosterman teaches integrating program material from different independent sources, not the same satellite:

Unfortunately, a DBS system normally does not receive local network or local independent channels. In order to provide these missing local channels, some DBS receivers are capable of automatically switching between the DBS satellite input and a local input. This is accomplished by placing the IRD box between the television (or a VCR connected to the television) and the local line (local cable or local antennae). When a local channel is selected by the user, the IRD box automatically removes DBS from service and becomes a bypass for the local input. A user can select a local channel either manually or with a remote control. Access to locally available channels is crucial because the majority of prime time viewing is on those local networks.

In contrast, if a user is receiving television channels from both cable and a local antenna sources, then the scenario is different. If the user's television has multiple television input ports, then these two sources can easily be attached to the two input ports. This solution works well as long as the number of sources does not become greater than the number of television input ports.

If the user's television does not have multiple inputs, then a manual switch box attached to the multiple sources and to the television input can be utilized. This solution forces the user to manually switch between one source and another depending on which channel is desired. For example, if the user wants the local news, which is available from the local antennae, and the switch is set to cable, then the user must manually switch from cable to the local antenna. In a society filled with remote controls and automation, this solution is unacceptable to many consumers. Moreover, manually switching between channels becomes more complicated as the number of channel sources is increased.

While the IRD box, multiple television input ports, manual switching unit, etc. provide non-automated and sometimes partial solutions to the above-described problems, a more versatile technique is needed. (col. 1, line 27 - col. 2, line 14)

In the preferred embodiment, the present invention is directed to coordinating input signals and program information, and more particularly to (1) coordinating television schedule guide information received from multiple sources, (2) automatically switching to a desired signal source, and (3) tuning to a desired television program. Thus, the present invention provides a tuning scheme which coordinates television schedule guide information. This information can be received from numerous sources. These sources include an incoming cable line (e.g., on a coax cable), satellite broadcasts, a dedicated telephone line (e.g., twisted pair), and any other medium capable of transmitting a signal.

The present invention provides a method of merging channel guide information in a television system. This method includes the receiving and storing of channel guide information. The channel guide information is received from multiple television signal sources. After receiving this channel guide information, the system mixes and sorts it into a desired order. Finally, a display of this channel guide information is generated and then shown on a television in the desired order. (col. 2, lines 16- 28)

In view of the foregoing, the Applicants cannot agree that there is any teaching to combine the references as suggested, and respectfully traverse.

With Respect to Claims 31 and 32: Claims 31-32 are patentable for the same reasons as claims 14 and 15.

In paragraph 12, the Office Action rejects claims 29-30 under 35 U.S.C. § 103(a) as being unpatentable over Klosterman and further in view of Eyer, Eastman and Stinebruner. The Applicants traverse, as claims 29 and 30 are patentable for the same reasons as claims 4 and 5.

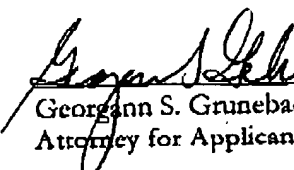
V. Dependent Claims

Dependent claims 2-8, 10-15, 17-22 and 24-33 incorporate the limitations of their related independent claims, and are therefore patentable on this basis. In addition, these claims recite novel elements even more remote from the cited references. Accordingly, Applicants respectfully requests that these claims be allowed as well.

VI. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,


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